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专利性国际初步报告
(PCT 第II章)
(PCT36 和细则 70)

REC'D 23 NOV 2005

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申请人或代理人的档案号 04P401014	关于后续行为 参见 PCT/IPEA/416 表	
国际申请号 PCT/CN2005/000024	国际申请日(日/月/年) 07.1 月 2005 (07.01.2005)	优先权日(日/月/年) 08.1 月 2004 (08.01.2004)
国际专利分类(IPC)或者国家分类和 IPC 两种分类 IPC ⁷ : C23C22/00, C23C22/06, C23C22/53		
申请人 中国国际海运集装箱(集团)股份有限公司 等		

1. 本报告是国际初步审查单位根据条约 35 做出的国际初步审查报告, 并依照条约 36 将其传送给申请人。
2. 本报告共计 4 页, 包括扉页。
3. ☐ 本报告还有附件,
- a. ☐ (传送给国际局和申请人)共计 _____ 页, 包含
- ☐ 修改后的并且作为本报告基础的说明书修改页、权利要求书修改页和/或附图修改页, 和/或对
本国际初步审查单位所做出的更正页(见 PCT 细则 70.16 和行政规程 607)。
- ☐ 国际初步审查单位认为修改超出原始公开范围的取代页, 参见第 I 栏第 4 项和补充栏。
- b. ☐ (传送给国际局) 共计 (指明电子载体的类型和数量) _____, 包含有在与序列表有关的补充栏中指
明的电子形式的序列列表和/或与其相关的表格。(行政规程 802)

4. 本报告包括关于下列各项的内容:

- I ☒ 报告的基础
- II ☐ 优先权
- III ☐ 不做出关于新颖性、创造性和工业实用性的意见
- IV ☐ 缺乏发明的单一性
- V ☒ 按条约 35(2)关于新颖性、创造性或工业实用性的理由; 支持这种意见的引证和解释
- VI ☐ 引用的某些文件
- VII ☒ 国际申请中的某些缺陷
- VIII ☐ 对国际申请的某些意见

提交要求书的日期 21.4 月.2005 (21.04.2005)	完成本报告的日期 24.10 月 2005 (24.10.2005)
中华人民共和国国家知识产权局 IPEA/CN 中国北京市海淀区西土城路 6 号(100088)	受权官员 史卫良
传真号: (86-10)62019451	电话号码: (86-10) 62084685

I. 报告的基础

1. 关于语言, 本报告将基于:

☒ 申请提出时使用的语言。

☐ 该申请的____语言译文, 提供该种语言的译文是

☐ 为了国际检索而提交的译文所使用的语言(细则 12.3 和 23.1(b))。

☐ 为了国际申请的公布而提交的译文所使用的语言(细则 12.4)。

☐ 为了国际初步审查而提交的译文所使用的语言(细则 55.2 和/或 55.3)。

2. 关于国际申请中各个部分, 本报告基于(申请人为答复受理局根据条约 14 所发通知而提交的替换页, 在本报告中视为“原始提交”的文件, 不作为本报告的附件)

☒ 原始提交的国际申请。

☐ 说明书, 第____页 原始提交的, 第____页*, 初审单位收到的, 第____页*, 初审单位收到的。

☐ 权利要求, 第____页, 原始提交的, 第____页, 按条约 19 条修改的(附有说明), 第____页*, 初审单位收到的, 第____页*, 初审单位收到的。

☐ 附图, 第____页, 原始提交的, 第____页*, 初审单位收到的, 第____页*, 初审单位收到的。

☐ 序列表和/或相关表格——参见与序列表有关的补充栏。

3. 修改导致以下内容的删除:

☐ 说明书, 第____页

☐ 权利要求, 第____项

☐ 附图, 第____页, 图____

☐ 序列表(具体说明)____

☐ 与序列表相关的表格(具体说明)____

4. ☐ 由于本报告附件的(某些)修改, 如下所列, 被认为超出了原始公开的范围, 如补充栏所示, 因此本报告是按照没有修改的情况做出的(细则 70.2(c))。

☐ 说明书, 第____页

☐ 权利要求, 第____项

☐ 附图, 第____页, 图____

☐ 序列表(具体说明)____

☐ 与序列表相关的表格(具体说明)____

*如果第 4 项适用, 一些或全部的文件页可能做出“被取代”标记。

专利性国际初步报告

国际申请号

PCT/CN2005/000024

V. 按条约 35(2)关于新颖性、创造性或工业实用性的意见：支持这种理由的引证和解释

1. 意见

新颖性(N)	权利要求 1-16	是
	权利要求	否
创造性(IS)	权利要求 1-16	是
	权利要求	否
工业实用性(IA)	权利要求 1-16	是
	权利要求	否

2. 引证和解释 (细则 70.7)

本书面意见是以国际检索报告中的下述文件为依据做出的：

对比文件 1: CN1268583A

对比文件 2: US6524403B1

对比文件 3: CN1386901A

对比文件 4: CN1301883A

对比文件 1 公开一种保护镀锌层的无铬钝化液，含水溶性丙烯酸酯树脂、缓蚀剂钼酸盐，pH 值为 6-9（权利要求 1，说明书实施例 1-18）。

对比文件 2 公开一种无铬组合物，含有钛离子源或钛酸盐、氧化剂和氟化物、或氟配合物（说明书实施例 1-10）。

对比文件 3 公开一种不含铬的金属表面处理剂，含有至少一种钒化合物(A)及由锆、钛、钼、钨、锰、及铈而成的组选出的至少一种金属化合物(B)（权利要求 1、说明书实施例 1-32）。

对比文件 4 公开一种金属表面处理剂，含有树脂化合物、钒化合物及选自 Zr、Ti、Mo、W、Mn 及 Ce 的金属的化合物（权利要求 1、说明书实施例 1-16）。

权利要求 1-16 的主题是一种无铬钝化液。

因为所有上述对比文件 1 到 4 都没有公开“过渡元素的含氧盐与无机酸的重量比 200~400:1”这一技术特征，所以权利要求 1-16 的主题分别与对比文件 1 到 4 相比具有新颖性，因此符合专利合作条约第 33（2）对新颖性的规定。

而权利要求 1-16 中的主题与对比文件 1 到 4 相比，是非显而易见的，因此，权利要求 1-16 的主题具有创造性，符合专利法合作条约第 33（3）对创造性的规定。

由于权利要求 1-16 的主题可以在工业上制造和使用，所以它们也符合专利合作条约第 33（4）对工业实用性的规定。

VII. 国际申请中的某些缺陷

国际申请在形式上或内容上存在下列缺陷:

权利要求 9 中的“所述硅酸盐”不清楚, 不符合专利合作条约第 6 条的规定。

权利要求 4 中的“35~45: 1”、权利要求 6 中的“7~10: 1”以及权利要求 13 和 14 中的“6: 5: 1”不清楚, 由于没有详细记载相应物质的次序, 导致数值比例范围不确定, 不符合专利合作条约第 6 条的规定。

Translation

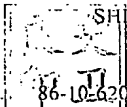
PATENT COOPERATION TREATY

PCT

REC'D 23 NOV 2005
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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 04P401014	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/CN2005/000024	International filing date (day/month/year) 07.Jan. 2005 (07.01.2005)	Priority date (day/month/year) 08.Jan.2004 (08.01.2004)
International Patent Classification (IPC) or national classification and IPC IPC: C23C22/00, C23C22/06, C23C22/53		
Applicant CHINA INTERNATIONAL MARINE CONTAINERS(GROUP) CO., LTD. etc		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic _____ containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>		
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>		
Date of submission of the demand 21.Apr.2005 (21.04.2005)	Date of completion of this report 24.Oct. 2005 (24.10.2005)	
Name and mailing address of the IPEA/CN The State Intellectual Property Office, the P.R.China. 6 Xitucheng Rd., Jimen Bridge, Haidian District, Beijing, China 100088 Facsimile No. 86-10-62019451	Authorized officer  SH WEILIANG Telephone No. 86-10-62084685	

Form PCT/IPEA/409 (cover sheet) (April 2005)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/CN2005/000024

Box No. 1 Basis of the report

1. With regard to the language, this report is based on:
 - ☒ the international application in the language in which it was filed
 - ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of:
 - ☐ international search (Rules 12.3(a) and 23.1(b))
 - ☐ publication of the international application (Rule 12.4(a))
 - ☐ international preliminary examination (Rules 55.2(a) and/or 55.3(a))
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
 - ☒ the international application as originally filed/furnished
 - ☐ the description:
 - pages _____ as originally filed/furnished
 - pages _____ received by this Authority on _____
 - pages _____ received by this Authority on _____
 - ☐ the claims:
 - pages _____ as originally filed/furnished
 - pages _____ as amended (together with any statement) under Article 19
 - pages _____ received by this Authority on _____
 - pages _____ received by this Authority on _____
 - ☐ the drawings:
 - pages _____ as originally filed/furnished
 - pages _____ received by this Authority on _____
 - pages _____ received by this Authority on _____
 - ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
 - ☐ the description, pages _____
 - ☐ the claims, Nos. _____
 - ☐ the drawings, sheets/figs _____
 - ☐ the sequence listing (*specify*): _____
 - ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 - ☐ the description, pages _____
 - ☐ the claims, Nos. _____
 - ☐ the drawings, sheets/figs _____
 - ☐ the sequence listing (*specify*): _____
 - ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/CN2005/000024**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement:

Novelty (N)	Claims 1-16	YES
	Claims	NO
Inventive step (IS)	Claims 1-16	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-16	YES
	Claims	NO

2. Citations and explanations (Rule 70.7)

The written opinion of the international searching authority is based on the following documents:

D1: CN1268583A

D2: US6524403B1

D3: CN1386901A

D4: CN1301883A

D1 discloses a chrome-free passivation liquid for protecting galvanized layer, comprising water soluble acrylate resin and as corrosion inhibitor molyadate, the pH of the passivation liquid is 6-9 (see claim 1 and examples 1-8 of D1).

D2 discloses a non-chrome containing composition, comprising a source of titanium ions or titanates, an oxidant and fluorides or complex fluorides (see examples 1-10 of D2).

D3 discloses a metal surface treatment agent of chrome-free, comprising at least one vanadium compound (A) and at least one metal compound (B) selecting from zirconium, titanium, molybdenum, tungsten, manganese and/or cerium (see claim 1 and examples 1-32 of D3).

D4 discloses a metal surface treatment liquid composition, comprising water and components (A), (B) and (C). Component A comprises a resin molecule component, component B is chosen from vanadium compounds where the valence of the vanadium atom is 5, 4, or 3 and (C) is a metal of one selecting from zirconium, titanium, molybdenum, tungsten, manganese and cerium (see claim 1 and examples 1-16 of D4).

The subject matters of claims 1-16 are chrome-free passivating solutions. All of the above documents (D1~D4) don't disclose that the ratio between the oxysalts of said transition metal and the inorganic acids is in the range of 200~400:1 by weight, so the subject matters of claims 1-16 are novel in comparison with D1-D4 and meet the criteria set under the PCT Art.33(2).

The subject matters of claims 1-16 are not obvious in comparison with D1-D4, so the subject matters of claims 1-16 are inventive in comparison with D1-D4 and meet the criteria set under the PCT Art.33(3).

Moreover, the subject matters of claims 1-16 can be made and used in industry, so the subject matters of claims 1-16 also meet the criteria set under the PCT Art.33(4).

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/CN2005/000024

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

1. The "Said silicate" of the claim 9 is not clear, so the claim 9 does not meet the criteria set under the PCT Art 6.
2. The "35~45:1" of claim 4, the "7~10:1" of claim 6, and the "6:5:1" of claims 13 and 14 are not clear, the necessary order of the substances have not been recorded corresponding to the ratios in the ranges of ratios of the claims, so the claims 4, 6, 13 and 14 do not meet the criteria set under the PCT Art 6.